EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1755	((strontium near3 ruthenium) near3 oxide) or (strontium ruthenate) or ("srruo.sub.3")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:25
L2	92	l1 and (bismuth oxide or "bi.sub.2 o.sub.3")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:07
L3	76	l2 and (target or sintered body or sputter$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:19
L4	12	"srruo.sub.3" and "bi.sub.2 o.sub.3" and (target or sintered body or sputter$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:28
L5	19	"srruo.sub.3" and "bi.sub.2 o.sub.3"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:29

EAST Search History

L6	7	l5 not l4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:28
L7	0	"srruo.sub.3" and "bi.sub.2o.sub.3"	EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:29
L8	0	"srruo.sub.3"	EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:30
L9	0	(srru$2) and (bismuth oxide)	EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:31
L10	102	(srru$2)	EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:31
L11	10	l10 and (target or sintered body or sputter$3)	EPO; JPO; DERWENT	ADJ	OFF	2007/01/20 13:32

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/07483

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl[7] C23C14/34, C04B35/01, H01L27/105, 21/285

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl[7] C23C14/00-14/58, C04B35/01, H01L27/105, 21/285

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1926-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPI/L[(C23C-014/34 or C04B-035/00) and strontium(w)ruthenium]

US 6843975

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 02/051769 A1 (NIKKO MATERIALS CO., LTD.), 04 July, 2002 (04.07.02), Claims 1 to 6; technical field; example 1; table 1 & JP 2002-193668 A Claims; Par. Nos. [0001], [0009], [0016]	1-3,6-8 4,5,9-14
Y	JP 2000-247739 A (Vacuum Metallurgical Co., Ltd.), 12 September, 2000 (12.09.00), Par. Nos. [0003], [0008], [0012], [0014] (Family: none)	4,5,9-14
A	JP 6-56503 A (Showa Denko Kabushiki Kaisha), 01 March, 1994 (01.03.94), Full description (Family: none)	1-14

[X] Further documents are listed in the continuation of Box C. [ ] See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search 16 September, 2003 (16.09.03)	Date of mailing of the international search report 07 October, 2003 (07.10.03)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/07483

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2002-211978 A (Hitachi Metals, Ltd.), 31 July, 2002 (31.07.02), Full description (Family: none)	1-14
A	Written and edited by Yoshio TSUDA, "Denki Dendosei Sankabutsu", Enlarged edition No.3, Shokabo, 25 July, 1987 (25.07.87), page 9	1-14

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-3, 6-8, 11, 14	YES
	Claims		NO
Inventive step (IS)	Claims	1-3, 6-8, 11, 14	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-3, 6-8, 11, 14	YES
	Claims		NO

2. Citations and explanations

Document 1: WO 02/051769 A1 (Nikko Materials Co., Ltd.), 04 July 2002, claims 1-6, field of the invention, example 1 and table 1

Document 2: JP 2000-247739 A (Vacuum Metallurgical Co., Ltd.), 12 September 2000, paragraphs 3, 8, 12 and 14

Claims 1-3, 6-8, 11 and 14

The inventions that are set forth in claims 1-3, 6-8, 11 and 14 do not involve an inventive step in the light of document 1 and document 2 cited in the international search report.

Document 1 cited in the international search report discloses $SrRuO_3$ oxide sintered compacts and spattering targets, which have a relative density of 95% or more and a specific resistance of approximately 260 μΩcm (that is to say, document 1 had previously disclosed $SrRuO_3$ oxide sintered compacts and spattering targets which have a relative density and a specific resistance similar to the relative densities and specific resistances that are specified in the claims of the present application, even without the addition of Bi_2O_3).

Document 2 cited in the international search report discloses the feature of adding between 0.001-0.500 mol of

Bi_2O_3 in order to increase the density when producing a $SrRuO_3$ sputtering target.

In the light of the abovementioned disclosures, it would be easy for a person skilled in the art to add Bi_2O_3 to the $SrRuO_3$ oxide sintered compacts and spattering targets that are disclosed in document 1, which have a relative density of 95% or more and a specific resistance of approximately 260 μΩcm, in order to further increase the density thereof, and to adjust the load of Bi_2O_3 so that it fulfills the relationship 0.5 mol < the load of Bi_2O_3 ≤ 1.0 mol.

Furthermore, document 2 indicates that the load of Bi_2O_3 is between 0.001-0.500 mol, and that the electrical conductivity of the invention deteriorates if the load of Bi_2O_3 exceeds 0.5 mol (paragraph [0007]). Meanwhile, the specific resistances of the inventions that are set forth in the present application deteriorate if the load of Bi_2O_3 exceeds 0.5 mol, as can be confirmed from the disclosures of the present application (fig. 1). Therefore, the present application merely confirms the technical content that is disclosed in document 2 (wherein the electrical conductivity of the invention deteriorates if the load of Bi_2O_3 exceeds 0.5 mol). In addition, there is no significant effect that results from a configuration wherein the load of Bi_2O_3 exceeds 0.5 mol.